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Population Health: The Translation of Research to Policy



Case Studies and Commentary

Robert Wood Johnson Foundation Health & Society Scholars

The Robert Wood Johnson Foundation Health & Society Scholars (HSS) program was designed to build the nation's capacity for research, leadership, and policy change, while addressing the multiple determinants of population health. One of its goals was to produce a cadre of scientific leaders who could contribute to this research and spearhead action to improve overall population health and eliminate health inequities.

This report, edited by Robert A. Hiatt, MD, PhD, University of California, San Francisco, takes a case study approach, using six diverse examples of science to policy translation generated by Scholars in the HSS program from 2003 to 2016. Because the HSS program was discontinued in 2017, the Milbank Memorial Fund published these case studies in 2018 in hopes that many audiences, including students, would use them to learn about the connections between research, decision making, and policy.

Commentary

This collection of six case studies was work undertaken by Robert Wood Johnson Foundation Health & Society Scholars (HSS) who either translated research initiated or ideas stimulated during the authors' experiences in the HSS program. As the Robert Wood Johnson Foundation has turned to a new emphasis on the Culture of Health (<https://www.rwjf.org/en/library/annual-reports/presidents-message-2014.html>), HSS has been discontinued, along with the Foundation's other human capital programs. The legacy of HSS, however, has been enormous and sustained. Hundreds of Scholars were trained in the program and have gone on to influential positions in academia, government, foundations and other not-for-profit organizations, and industry. This report represents an important facet of this legacy by illustrating through personal stories the capacity for population health science to impact policies designed to improve the lives of individuals and the well-being of communities.

As a final step in exploring the translation of evidence to policy, following the compilation of the case studies, in November 2016 HSS's National Program Office at The New York Acade-

my of Medicine sponsored a workshop at the National Academies of Sciences, Engineering, and Medicine in Washington, D.C. The workshop brought together several of the program's Scholars, including those who had produced the case studies, selected HSS faculty members, and leaders in science, policy, and the media who might be end users of the research findings (see table of attendees). The goal of the meeting was to provide a platform to discuss the key elements of effective training for the translation of evidence into policy. Using three of the case studies as a point of departure, the participants engaged in a dialogue regarding the nature of evidence that is most useful in the policymaking process and how best to communicate it. A summary of the key points from this lively and rich discussion follows.

In general, there was broad agreement that creating training environments for the translation of science into policy remains essential. Faculty directors from two of the HSS sites (Wisconsin and Michigan) led this portion of the meeting; their key points and those of several Scholars are highlighted.

At the Wisconsin site, the construct for scholarly activity on “knowledge exchange” and “knowledge transfer” draws on the seminal work of John Lavis and others in Canada.^{1,2} Lavis et. al. have been concerned with creating organizational frameworks for knowledge translation strategies specifically focused on policymakers. At Wisconsin, exposure to the concept and function of knowledge exchange was a central training tenet and considered a teachable skill. Leaders of the Wisconsin site stressed that connections to community resources were key to the pedagogic process, and specific time and effort was devoted to facilitating Scholars' introductions to decision makers and those who could assist in the knowledge exchange process.

At the Michigan site, the focus was more on the fundamental scientific aspects of population health rather than its dissemination and implementation. However, they adopted Kingdon's three-stream policy framework for instructing their Scholars on research translation.³ Kingdon's political science framework identifies a *problem* stream that describes some social or political condition as a problem; a *policy* stream that provides a solution to the problem; and a *political* stream that requires consensus across a variety of decision makers and the political will for action. These streams make it more or less likely that a research solution will be applied in practice and policy (e.g., Medicare in the 1960s). Debates at Michigan revealed differences of opinion between economists on the one hand and social scientists and epidemiologists on the other, as to the strength of the available scientific evidence to drive policy change from various disciplines. A volume that resulted from a conference titled Making Americans Healthier highlights aspects of that debate (<https://www.russellsage.org/publications/making-americans-healthier>).

While not sufficient by itself, participants emphasized that for those who wish to translate their research into practice, effective communication training via mentoring or coaching is a critical skill. One media leader emphasized the “core curriculum” of communication as identifying who you want to reach and what they want to know and developing a clear message for each audience. Elements of effective communication include enthusiastic presentation of research to get one’s message across, skill in dealing with controversial topics, and learning to talk with those who dismiss the science.

The workshop also highlighted the central need to relate policy change efforts to the needs of the people being served. Experience in community engagement and, again, communication skills are essential. It was pointed out during the discussion that Colorado State University, a land-grant institution, trains students to talk with the farmers who may benefit from the university’s research in order to maximize its relevance. In other settings, it was recommended that population health researchers use an interdisciplinary team approach to engage the people and institutions that will use the research before project launch. In fact, some suggest that this occur while still in the intervention or research design phase, as these end users can clarify the standards of evidence that will be needed to effect policy changes.

As the focus of the workshop shifted to the “practice” of translation, communication continued to be an important theme, along with the importance of effective partnering. These collaborations might be with community groups that may be closer to understanding the needs and goals of those who may be affected by a policy; with advocacy groups that can use researchers’ evidence in their work, especially with sectors outside health; and with media from the beginning of the project so that they fully understand the project goals and can advise on communication strategies along the way. One participant said, “We are not just subjects of the media, but we also have to be messengers with them.” Other key partners identified are those who can help the researcher navigate the system and serve as local champions for the change process being sought.

As population health professionals seek to become more effective in translation to other sectors, researchers were encouraged to attend other professional meetings (e.g., transportation and urban planning) to understand their vocabularies and identify the points of impact for population health important in these latter sectors. Solutions to complex societal problems almost invariably demand such multidisciplinary exploration. Early and sustained exposure to colleagues in other disciplines is needed so scholars and practitioners can increase their opportunities to learn to speak the other “languages” that are critical to effective research and practice collaborations. One participant observed that think tanks are increasingly asked to conduct environmental scans to synthesize evidence across multiple sectors versus more narrow evaluation of a specific project. Because of the relative novelty of working at the inter-

section of disciplines and sectors, a challenge may be how to use population health scholarship and methodologies to tackle problems where there is yet no evidence.

The discussion with policymakers indicated their need for tools to help them weigh the relative benefits of investment in one intervention versus another, e.g., creating a matrix of evidence-based options and identifying which are “best buys” for population health. Researcher understanding of the regulatory and legal frameworks within which the policymaker or politician operates can help clarify the kinds of evidence needed to adapt the choice of interventions to local circumstances and make them more sustainable. Researchers should be aware of the short-term time frame in which results are needed by policymakers who, as one participant noted, may lean toward “shovel-ready projects” rather than those that support medium- to long-term capacity building.

Other commentary recognized that true policy change may require a long time to accomplish and is unlikely to occur within the usual three to five years of a research grant. The standards of evidence demanded by agencies and policymakers will differ, and even with data, politics may mitigate against or expedite action. However, small steps can be made on the path to significant change, especially when supported by data and accompanied by patience and sustained efforts.

In conclusion, the workshop strongly supported the continued training of scientists from diverse disciplines to become conversant in the frameworks and processes that effectively translate new research into policy applications. Participants reinforced the importance of (and challenges in supporting) multi-sectoral and interdisciplinary scholarship, communication, and collaboration to understand the broad determinants of health and solve the complex problems needed to achieve real advances in population health. Workshop attendees were unanimous about the importance of continuing dialogue among researchers interested in translation and policymakers and opinion leaders who must act, often regardless of the quality of the evidence. These case studies from the HSS program are intended as a legacy contribution to this important process.

References

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November 2016 Workshop Attendees

Affiliation while attending the workshop is indicated.

Courtney Ferrell Aklin, PhD	Chief of Staff, National Institute on Minority Health and Health Disparities
Dawn Alley, PhD	Director, Prevention and Population Health Group at the Center for Medicare and Medicaid Innovation
Christine Bachrach, PhD	Co-Director, Robert Wood Johnson Foundation Health & Society Scholars program
Jo Ivey Boufford, MD	President, The New York Academy of Medicine, and Co-Director, Robert Wood Johnson Foundation Health & Society Scholars program
Ed Christopher, MS	Metropolitan Planning Specialist (retired), Federal Highway Administration's Resource Center
Kristin Harper, MPH, PhD	Harper Health & Science Communications
Robert A. Hiatt, MD, PhD	Professor and Chair, Department of Epidemiology and Biostatistics, University of California, San Francisco
James S. House, PhD	Angus Campbell Distinguished University Professor of Survey Research, Institute for Social Research, University of Michigan
Bill Keyrouze, MS	Manager of Technical Programs, Association of Metropolitan Planning Organizations
David A. Kindig, MD, PhD	Co-Chair, IOM Roundtable on Population Health Improvement, and Co-Director, University of Wisconsin Robert Wood Johnson Foundation Health & Society Scholars program

Lindsey Leininger, PhD	Senior Health Researcher, Mathematica Policy Research
Alan I. Leshner, PhD	Chief Executive Officer Emeritus, American Association for the Advancement of Science
Gina S. Lovasi, PhD, MPH	Associate Professor of Urban Health, Co-Director Urban Health Collaborative, Drexel University
Sheryl Magzamen, PhD	Assistant Professor of Epidemiology, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences at Colorado State University
Sabrina McCormick, PhD	Associate Professor, Department of Environmental and Occupational Health, Milken Institute School of Public Health, George Washington University
Michael McGinnis, MD, MA, MPP	Leonard D. Schaeffer Executive Officer at the National Academy of Medicine
Jeffrey D. Price	Program Manager, Robert Wood Johnson Foundation Health & Society Scholars program
Brendan Saloner, PhD	Assistant Professor, Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health
Carol Schadelbauer	Principal and Co-Director, Training Programs, Burness
Yonette F. Thomas, PhD	Science Advisor for Urban Health, The New York Academy of Medicine
Barbara Turk	Director of Food Policy, New York City, Office of the Deputy Mayor for Health and Human Services

Biographical Notes on Contributors

Marcus Bachhuber, MD, MSHP, is an assistant professor in the Division of General Internal Medicine at Montefiore Medical Center/Albert Einstein College of Medicine in the Bronx, New York. He completed his medical degree at the University of Pennsylvania School of Medicine followed by residency and chief residency at the Einstein-Montefiore Primary Care and Social Internal Medicine Residency Program. He completed a fellowship with the Robert Wood Johnson Foundation Clinical Scholars Program at the Philadelphia Veterans Affairs Medical Center and the University of Pennsylvania where he also obtained a master of science degree in health policy research. In addition to being a primary care provider, Dr. Bachhuber conducts research focusing on health system and policy approaches to addressing prescription drug misuse.

Michael D.M. Bader, PhD, assistant professor of sociology at American University, studies how cities and neighborhoods have evolved since the height of the civil rights movement. He links long-term patterns of neighborhood racial change to the ways that race and class influence the housing search process. He studies how these changes affect the health and well-being of Americans and potentially exacerbate racial health inequality. To accomplish this research, Dr. Bader has developed methodological tools that combine survey data with “big data” to study neighborhood environments.

Ed Christopher is an independent transportation planning consultant with over 35 years of public sector experience at the regional, state, and federal levels.

Robert A. Hiatt, MD, PhD, is professor and former chair of the Department of Epidemiology and Biostatistics at the University of California, San Francisco (UCSF), and the associate director for Population Science of the UCSF Helen Diller Family Comprehensive Cancer Center. He was a core faculty member of the Robert Wood Johnson Foundation Health & Society Scholars program at UCSF. He received his medical degree from the University of Michigan and his doctorate in epidemiology from the University of California, Berkeley.

Danya Keene, PhD, is an assistant professor of social behavioral sciences at the Yale School of Public Health. Her mixed-methods research examines the social and policy determinants of health inequalities, with a focus on issues related to housing and place. Dr. Keene received her PhD in public health from the University of Michigan and was a Robert Wood Johnson Foundation Health & Society Postdoctoral Scholar at the University of Pennsylvania.

Gina S. Lovasi, PhD, MPH, is now the Urban Health Collaborative Co-Director and Dornsife Associate Professor of Urban Health at Drexel University. She was assistant professor at Columbia University when she developed her case study. She received a bachelor of science

degree in ecology, behavior, and evolution at the University of California, Los Angeles, and a master of public health degree and a doctor of philosophy degree in epidemiology from the University of Washington. Dr. Lovasi is a social epidemiologist with a commitment to using longitudinal spatial data and emerging statistical approaches to shift the field of urban health research toward more convincing, cohesive, efficient, and actionable knowledge generation. Her research focuses on how policies and urban infrastructure influence cardiovascular and pulmonary health, as well as differences in these effects across population subgroups with relevance to health equity. She leads coordinated efforts across the multiple institutions that are coming together to help develop rigorous, action-oriented research focused on longitudinal assessments of neighborhood characteristics and their trajectories of change.

Carolyn McAndrews, PhD, is an assistant professor in the Department of Urban and Regional Planning at the University of Colorado Denver. Her research focuses on the health, safety, and environmental effects of transportation and land-use systems.

Sabrina McCormick, PhD, (www.sabrinamccormick.com) is an associate professor at George Washington University and Senior Fellow at the Wharton School. She investigates the human drivers and effects of climate change, and produces films that compel audiences to engage in these issues. She was lead author on the Nobel Prize-winning Intergovernmental Panel on Climate Change and has advised Congress, the State Department, and the White House. Dr. McCormick's film work includes her feature film, *Tribe*; the Showtime series *Years of Living Dangerously* (<http://theyearsproject.com/>), which won the Emmy for Best Documentary Series in 2014; *After the Cap*, and *No Family History*, among others. Dr. McCormick's research has been featured on NBC Nightly News, *Time Magazine*, the *Chicago Tribune*, and many other media outlets.

Kathryn M. Neckerman, PhD, is a research scientist at the Columbia Population Research Center at Columbia University. She was associate director of the Robert Wood Johnson Foundation Health & Society Scholars site at Columbia, and, with Andrew Rundle, co-founded Columbia's Built Environment and Health research group. Research interests include urban inequality, walkability and health, and urban transportation.

Eloisa Raynault is a business intelligence analyst at the Port of Seattle, focused on exploring and visualizing data to drive critical decisions. She has extensive experience in the transportation, environmental, public health, and social responsibility domains. Previously, she was the transportation, health, and equity program manager at the American Public Health Association (APHA), where she examined and tracked the public health and equity impacts of transportation systems and policies and shared resources on these topics with the APHA's more than 50,000 members and affiliates. She serves as a member of the National Academy

of the Sciences' Transportation Research Board Health and Transportation Subcommittee, the Environmental Justice Committee, and the Air Quality Committee.

Andrew Rundle, DrPH, is an associate professor of epidemiology at the Mailman School of Public Health at Columbia University. His research focuses on the determinants of sedentary lifestyles and obesity across the life course and the health-related consequences of these conditions. Dr. Rundle co-directs the Built Environment and Health Research Group (<https://beh.columbia.edu>), a transdisciplinary team of researchers studying how neighborhood built and social environments influence diet, physical activity, and, in turn, obesity risk. He also directs childhood obesity research for the Columbia Center for Children's Environmental Health. His work on neighborhood health effects has been used as part of the scientific rationale for the New York City Active Design Guidelines, for the Mayor's Food Policy Task Force's Food Retail Expansion to Support Health (FRESH) initiative, and for the International WELL Building Institute's WELL Building and WELL Community Standards.

Brendan Saloner, PhD, is an assistant professor of health policy and management at the Johns Hopkins Bloomberg School of Public Health. Dr. Saloner investigates policies to improve health and health care of vulnerable populations, including policies related to the prevention and treatment of substance use disorders. He was a Robert Wood Johnson Health and Society Scholar at the University of Pennsylvania. Dr. Saloner holds an early career grant from the National Institute on Drug Abuse.

Jennifer Stuber, PhD, is an associate professor of social work at the University of Washington. After losing her husband to suicide in 2011, she channeled her grief into co-founding Forefront Suicide Prevention, a University of Washington-based social impact center that empowers individuals and communities, champions systemic change, and advocates for survivors of suicide loss and attempted suicide. She has helped pass six significant pieces of suicide prevention legislation in Washington State, the first state to mandate suicide prevention training for all health, counseling, and behavioral health professionals. Dr. Stuber has formed alliances with Second Amendment rights organizations to tackle firearm suicide, the cause of half of all suicide deaths. Recently, she led the launch of Safer Homes Suicide Aware, a statewide campaign to train pharmacists, firearms retailers, and health care professionals to be on the front lines of engaging with patients and customers to promote safe storage of lethal means.

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The Milbank Memorial Fund is an endowed operating foundation that works to improve the health of populations by connecting leaders and decision makers with the best available evidence and experience. Founded in 1905, the Fund engages in nonpartisan analysis, collaboration, and communication on significant issues in health policy. It does this work by publishing high-quality, evidence-based reports, books, and *The Milbank Quarterly*, a peer-reviewed journal of population health and health policy; convening state health policy decision makers on issues they identify as important to population health; and building communities of health policymakers to enhance their effectiveness.

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